

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RONALD J. ASJES

Appeal No. 1997-1266
Application 08/078,791

ON BRIEF

Before HAIRSTON, KRASS and HECKER, **Administrative Patent Judges.**

HECKER, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 3, 5 through 9, 11, 12 and 15 through 24, all claims pending in this application.

The invention relates to an apparatus and method for determining the type of a battery according to its chemical contents. In particular, and with regard to Figure 1, battery 10 is placed in an excitation coil 20 which generates an

alternating magnetic field. This field is inductively coupled, substantially by the battery, to sense coil 30, which reflects the composition of the battery. Since many batteries have a protective jacket made of steel, the large iron content thereof dominates the electro-magnetic properties. The invention saturates the steel jacket with a quasi-static magnetic field which allows the magnetic induction for the alternating magnetic field to be largely determined by the interior of the battery.

The independent claim 1 is reproduced as follows:

1. Apparatus for determining the type of battery or accumulator (10), the apparatus comprising at least one excitation coil (20) coupled to energising [sic] means (21, 22, 23) for generating an alternating magnetic field and thereby inducing an alternating current in said battery or accumulator (10), means for placing the battery or accumulator (10) in said alternating magnetic field and detection means (30, 31, 32) for measuring induced current during the presence of the battery or accumulator (10) in the alternating magnetic field, characterised [sic] in that the apparatus further comprising means (41, 42; 24, 34) for establishing a quasi-static magnetic field in the battery or accumulator (10) during the measurement of the induced current, said quasi-static magnetic field being applied for causing a substantial saturation in at least a portion of ferromagnetic parts of the battery or accumulator (10).

The Examiner relies on the following references:

DeLanty

2,346,830

Apr. 18, 1944

TuXuan (PCT/EP)

WO 91/15036

Oct. 3, 1991

Claims 1 through 3, 5 through 9, 11, 12 and 15 through 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over TuXuan in view of DeLanty.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the brief and answer for the respective details thereof.

OPINION

After a careful review of the evidence before us, we agree with the Examiner that claims 1 through 3, 7, 8, 9, 12, 16, 17 and 22 are properly rejected under 35 U.S.C. § 103. Thus, we will sustain the rejection of these claims, but we will reverse the rejection of claims 5, 6, 11, 15, 18 through 21, 23 and 24 for the reasons set forth *infra*.

At the outset, we note that Appellant has indicated on page 7 of the brief that claims 1 through 3, 8, 9, 12, 16, 17 and 22 stand together, which we will indicate as group I and select claim 1 as the representative claim. Also, Appellant has indicated that claims 5, 6, 11, 15, 18 through 21 and 23 stand together, which we will indicate as group II and select

claim 21 as the representative claim. The Examiner has concurred with this grouping as indicated on page 2 of the Answer. We further note that Appellant has not designated claims 7 and 24 for either group, nor indicated that they stand separately. Based on the content of claims 7 and 24, and that they were not argued separately, we find that claim 7 should be placed in group I, being similar to claims 16 and 17. We further find that claim 24 should be placed in group II, being similar to claim 21.

ANALOGOUS ART

Appellant argues that DeLanty is not analogous art.

Appellant maintains:

The DeLanty patent is concerned with the art of determining whether there are flaws in metal tubes and not sorting metal tubes according to their composition. DeLanty is not concerned with even sorting metal tubes, which are non-analogous to batteries according to their compositions. Instead, DeLanty is concerned with the non-analogous procedure of determining whether there are any defects present in metal tubes all of which have a substantially identical composition. (Brief-page 9.)

The Examiner responds "DeLanty can be considered analogous since the claimed invention, the device of TuXuan

and the device of DeLanty all use an alternating magnetic field to test an object." (Answer-page 3.)

In determining whether a claim would have been obvious at the time of the invention, the Examiner must first determine the scope and content of the prior art. **Graham v. John Deere Co.**, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). "Although § 103 does not, by its terms, define the 'art to which [the] subject matter [sought to be patented] pertains,' this determination is frequently couched in terms of whether the art is analogous or not, *i.e.*, whether the art is 'too remote to be treated as prior art.'" **In re Clay**, 966 F.2d 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992) **citing In re Sovish**, 769 F.2d 738, 741, 226 USPQ 771, 773 (Fed. Cir. 1985).

In making this determination, we must consider two criteria. First, it must be determined if the prior art is from the same field of endeavor, regardless of the problem addressed. Secondly, even if the prior art is not in the same field of endeavor, it must be determined whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. **In re Clay, supra**, 966 F.2d at 658-659,

23 USPQ2d at 1060. With respect to the field of endeavor, we agree with Appellant. Appellant's sorting of batteries, or even "testing" of batteries, for chemical content, is not within the same field of endeavor as DeLanty's testing of tubes, or other metallic articles, for flaws. However, DeLanty may still be analogous if it is "reasonably pertinent to the particular problem with which the inventor is involved." *Id.* See also

In re Paulsen, 30 F.3d 1475, 1481, 31 USPQ 2d 1671, 1675-76 (Fed. Cir. 1994).

The Examiner has not commented on whether DeLanty is "reasonably pertinent to the particular problem with which the inventor is involved". Appellant's problem is that metal jackets (or tubes) interfere with the measurement of other battery elements, i.e., internal chemical content. DeLanty had a similar problem, the metal of the metal tubes interfered with the measurement of other elements, i.e., internal defects. Thus, Appellant's problem was the same as DeLanty's problem, and therefore, reasonably pertinent and analogous.

Combinability

Appellant argues that TuXuan does not teach establishing a quasi-static magnetic field in the battery as claimed while subjecting the battery to an alternating magnetic field. Also, Appellant argues that it would not be obvious to combine TuXuan with DeLanty since DeLanty is non-analogous art. We have found, *supra*, that DeLanty is analogous art. As noted *supra*, DeLanty solves the same problem, and we might add, in the same way claimed by Appellant, by causing static magnetic sturation of the interferring metal. Thus, we agree with the Examiner that it would have been obvious to one of ordinary skill in the art to have used DeLanty's solution to the problem in TuXuan, a combination that meets the requirements of Appellant's claim 1.

It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. *In re Sernaker*, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983).

Therefore, we find that the Examiner has shown that the prior art suggested the desirability of the modification as

suggested by the Examiner. Thus, we will sustain the 35 U.S.C.

§ 103 rejection of claim 1, and likewise the rejection of claims 2, 3, 7, 8, 9, 12, 16, 17 and 22 which stand or fall therewith in group I.

Turning to the group II claims with claim 21 as the representative claim, Appellant argues:

In addition, there is no teaching or suggestion of energizing the excitation coil with an alternating magnetic field in which the minimum frequency is about 1kHz. The maximum frequency employed in Tu Xuan 600 Hz, shown in Fig. 4, is a little more than 10% of the minimum frequency employed in the apparatus and method defined by these claims. (Brief-page 9.)

The Examiner's position is:

The **specific frequency used** and sorting by weight and size **are** considered **obvious design considerations** since these limitations are **old and known in the art**.
(Emphasis added.)(Answer-page 3.)

We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference, common knowledge or unquestionable demonstration. Our reviewing court requires this evidence in order to establish a **prima facie** case. *In re Knapp-Monarch Co.*, 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); *In re*

Cofe*fer*, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966).

Since the Examiner has supplied no such evidence or demonstration of common knowledge as to the specific frequencies claimed, we will not sustain the 35 U.S.C. § 103 rejection of claim 21, and likewise claims 5, 6, 11, 15, 18 through 20, 23 and 24, which stand or fall together in group II.

In view of the foregoing, the decision of the Examiner rejecting claims 1 through 3, 7, 8, 9, 12, 16, 17 and 22 under 35 U.S.C. § 103 is affirmed; however, the decision of the Examiner rejecting claims 5, 6, 11, 15, 18 through 21, 23 and 24 under 35 U.S.C. § 103 is reversed.¹

¹ We note that several of the claims, including claims for which the rejection has been reversed, contain the language "about" and "preferably about" which could be considered ambiguous. Also, in claim 22, last paragraph, "The battery" should be --the battery--, and claims should use the U.S. spelling of such words as "energizing."

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED-IN-PART

	Kenneth W. Hairston)	
	Administrative Patent Judge)	
)	
)	
	Errol A. Krass)	BOARD OF
PATENT	Administrative Patent Judge)	APPEALS AND
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